



UNITED STATES PATENT AND TRADEMARK OFFICE

9/12
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,667	02/22/2000	Claus Strowitzki	249/302	2844

30623 7590 11/05/2002

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY
AND POPEO, P.C.
ONE FINANCIAL CENTER
BOSTON, MA 02111

EXAMINER

FLORES RUIZ, DELMA R

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/510,667	STROWITZKI, CLAUS
	Examiner Delma R. Flores Ruiz	Art Unit 2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 August 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Paul J.P.
PAUL J.P.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 47.
- 4) Interview Summary (PTO-413) Paper No(s). _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1 –^{3 and 20}20 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 – 20 are confusing, vague, and indefinite. Claim 1 recites a dust-repelling unit for a laser optical element without the recitation of any dust repelling unit structure or a laser optical element structural. The claim recites only a high voltage cable in term of misleading language of a "high voltage dust", and a closed wire loop. There is no structural relationship recited in the claim to further define as how the high voltage dust is connected to the dust repelling unit or a laser optical element. The closed wire loop is not shown in any at the figures. The claim fails to clearly as how the closed wire loop is connected to the high voltage core or the dust-repelling unit. It is not clear as what a closed wire loop is recited in the claim. Lacking of these limitation and its relationship recorder the claim confusing vague and indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Das et al (5,377,215).

Regarding claims 1 – 3, and 20, Das discloses a dedusting unit for a laser optical element, comprising: a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core and the high-voltage duct comprises a coaxial duct and high-voltage duct comprises a cylindrical ceramic tube (see Figs. 1 – 2, Abstract, Column 4, lines 40 – 50, 64 – 67, Column 5, lines 1, 26 – 36, Column 6, lines 5 – 16, 42 – 67).

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: claim 4 has been allowed over the prior art because they fail to teach a gas laser, comprising: a tube having a first end wall at one end and second end wall at the other end and defining a cavity for coating a laser gas an elongated high voltage electrode within the tube and extending parallel to the longitudinal axis of the tube; an elongated ground electrode within the tube, the ground electrode extending parallel to the high voltage electrode and being spaced apart from the high voltage electrode to thereby define a gas discharge gap therebetween; a laser resonating path in axial alignment with the gas discharge gap; a first laser optical element disposed in the laser resonating path and having a first side exposed to the cavity formed by the tube and a dedusting unit comprising a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core; and the dedusting unit mounted to the laser tube so that the wire loop is disposed inside the tube in proximity to the first side of the optical element, and the wire loop is transverse to the resonating path so that the resonating path passes through the wire loop.

Claims 5 – 12 has been found allowable due to their dependency on claim 4.

The following is an examiner's statement of reasons for allowance: claim 13 has been allowed over the prior art because they fail to teach a method for installing a dedusting unit for a laser optical element of a gas laser, comprising: a tube having a first end wall at one end and a second end wall at the other end and defining a cavity for containing a laser gas, a laser resonating path substantially parallel to the longitudinal axis of the tube and along which coherent light can resonate, and a laser optical element having a first side exposed to the cavity formed by the tube, the laser optical element being mounted to the first end wall so that the first side of the optical element is disposed in the laser resonating path, and wherein the dedusting unit for the optical element comprises a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core, the method comprising the step of; flattening the wire loop into an elongated shape so that the width of the wire loop is similar that the diameter of a bore hole extending through the first end wall, inserting the wire loop through the bore until the elongated wire loop is inside the tube; expanding the elongated wire loop to a desired from which is transverse to the resonating path; and positioning the wire loop of desired from so that it is in

proximity to the first side of the optical element and the laser resonating path passes through the wire loop.

Claims 14 – 17 has been found allowable due to their dependency on claim 13.

The following is an examiner's statement of reasons for allowance: claim 18 has been allowed over the prior art because they fail to teach a method for installing a dedusting unit for a laser optical element of a gas laser, comprising: a tube having a first end wall at one end and a second end wall at the other end and defining a cavity for containing a laser gas, a laser resonating path substantially parallel to the longitudinal axis of the tube and along which coherent light can resonate, and a laser optical element disposed in the laser resonating path and having a first side exposed to the cavity formed by the tube, wherein the first end wall has a port aligned with the resonating path and a bore hole for installing the dedusting unit therethrough, and the optical element is mounted to the first end wall in alignment with the port, and wherein the dedusting unit for the optical element comprises a high-voltage duct comprising a high-voltage conducting core having a first end and second end and an insulator element disposed around the core, the first end of the core being connectable to high voltage power supply; and a wire loop electrically connected to the second end of the high-voltage core, the method comprising the step of; flattening the wire loop into an elongated shape so that

the width of the wire loop is similar that the diameter of a bore, inserting the wire loop through the bore until the elongated wire loop is inside the tube; expanding the elongated wire loop to a desired from which is transverse to the resonating path; and positioning the wire loop of desired from so that it is in proximity to the first side of the optical element and the laser resonating path passes through the wire loop.

The following is an examiner's statement of reasons for allowance: claim 19 has been allowed over the prior art because they fail to teach a method for installing a dedusting unit for a laser optical element of a gas laser, comprising: a tube with a first end wall and a second end wall and a bore hole extending through the first end wall, wherein the dedusting unit for the optical element comprise a high-voltage conducting core having a first end and second end and an insulator element disposed around the core having a diameter which is lees than the bore hole in the first end wall of the tube, the first end of the core being connectable to a high voltage power supply and a flattened wire loop electrically connected to the second end of the high-voltage core having a diameter smaller that the bore diameter, but which is capable of being expanded to a diameter grater than the bore diameter, the method comprising the step of; inserting the wire loop through the bore until the elongated wire loop is insid the tube; expanding the elongated wire loop to a desired from which has a diam ter greater than the bore diameter and which is

transverse to a laser resonating path that is substantially parallel to the longitudinal axis of the tube and positioning the wire loop of desired from so that it is in proximity to an optical element disposed in the laser resonating path and so that the laser resonating path passes through the wire loop.

Claims 4 – 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reason for Allowance".

Response to Arguments

Applicant's arguments with respect to claims 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (703) 308-6238. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.



Delma R. Flores Ruiz
Examiner
Art Unit 2828



Paul Ip
Supervisor Patent Examiner
Art Unit 2828

DRFR/PI
October 31, 2002